

REMARKS

The present system is a broadcast system for delivering content to a terminal, a method of delivering content to terminals, a broadcast system, a method of using a plurality of terminals for delivering content to terminals in respective locations, a terminal for receiving content from a broadcast network having a plurality of transmitters for delivering content to terminals in respective locations and a method of receiving content from a broadcast network having a plurality of terminals. In accordance with an embodiment of the invention, a broadcast system 1 for delivering content to a terminal 3 includes a plurality of transmitters having transmission characteristics to define a network topology as illustrated in Figs. 5 and 6. A network controller 33, in response to distribution of demand for specific content, determines an appropriate network topology by varying the transmission characteristics of at least one of the transmitters. The variation of the network topology provides a solution to the prior art problems as described above in conjunction with Fig. 1 which provides improvement of spectral efficiency of a network. See the first paragraph in the Summary of the Invention. In accordance with a preferred methodology, the appropriate network topology is varied by changing cell size as, for example, described in page 2, lines 21-32, through page 3, lines 1-11, of the specification.

Claims 1-41 stand rejected under 35 U.S.C. §103 as being unpatentable over United States Patent 5,651,010 (Kostreski et al) in view of United States Patent 5,241,685 (Bodin et al). These grounds of rejection are traversed for the following reasons.

With respect to Kostreski et al, the Examiner states as follows:

Regarding claim 1, Kostreski discloses a broadcast system for delivering content to a terminal (abstract), including a plurality of transmitters (TX1 -TX3), and a network controller (5) responsive to distribution of demand of specific content to (column 7, line 1-45 and figure 4).

Kostreski does not teach the network defines the topology of region by varying the transmission characteristics.

However, Bodin et al teaches the network defines the topology of region by varying the transmission characteristics (column 5, lines 41-46 and figure 2 reducing the size of cell by dynamically varying the entering threshold of cells). Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time of the invention was made to define the topology of region by dynamically varying cell size, as evidenced by Bodin, for the terminal to receive quality content of the transmission and avoid interference that causes by neighboring cell transmitters.

Furthermore, the Examiner reasons with respect to Bodin et al as follows:

However, Bodin et al teaches the network defines the topology of region by varying the transmission characteristics (column 5, lines 41-46 and figure 2 reducing the size of cell by dynamically varying the entering threshold of cells). Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time of the invention was made to define the topology of region by dynamically varying cell size, as evidenced by Bodin, for the terminal to receive quality content of the transmission and avoid interference that causes by neighboring cell transmitters.

If the proposed combination of Kostreski et al and Bodin et al were made, the subject matter of the independent claims would not be achieved.

It is submitted that with respect to the independent claims, the proposed combination does not disclose any description of variation of the broadcast pattern of signals from the transmitters which is responsive to a demand for specific content as recited in claim 1, an analysis of the content to be delivered together with its

destination as recited in claim 9, means for determining a distribution of terminals for delivery of common content and varying the operational characteristics of the transmitter responsive to the determined distribution of terminals as recited in claim 14, determining a distribution of terminals receiving common content and varying a set of operational characteristics of a transmitter responsive to the distribution of terminals as recited in claim 15, a transmitter operating in accordance with a variable set of operational characteristics with the operational characteristics defining a network topology as recited in claim 16, and each transmitter operating in accordance with a variable set of operational characteristics and changing reception characteristics in accordance with a signal indicative of operational characteristics of a transmitter with the operational characteristics of the transmitter defining a network topology as recited in claim 17.

Bodin et al would be understood by a person of ordinary skill in the art to pertain to the handling of telephone calls in a mobile cellular system to achieve load balancing by dynamically moving borders which does not pertain to the claimed subject matter set forth above regarding the delivery of specific or common content and varying the operational characteristics or transmission characteristics of at least one transmitter.

It is noted that the Examiner has referred to Fig. 2 and column 5, lines 41-46, as representing a network which defines the topology of a region by varying the transmission characteristics. What is disclosed in column 5, lines 41-46, is the varying of entry thresholds into cells C1 and C4 so that their respective sizes are increased or decreased pertaining to load balancing of the voice channels. It is

submitted that a person of ordinary skill in the art would not consider the movement of cell boundaries to provide handoff for mobile stations for voice calls by changing the effective size of cells, such as C1 and C4 to meet the subject matter of the claims pertaining to content. See column 6, lines 3-42, wherein the handoff mechanism is described in more detail.

Specifically, the entry threshold, as described in Bodin et al, which is a function of signal strength, is submitted to be unrelated to the claimed distribution of demand for content. It is submitted that a person of ordinary skill in the art would not consider Bodin et al to describe a broadcast system for delivering content to a terminal since voice is not considered by person of ordinary skill in the art to be content.

Moreover, with respect to claim 1, it is noted that the Examiner has not identified the claimed network controller responsive to distribution of demand for specific content to determine an appropriate network topology for varying the transmission characteristics of at least one of the terminals.

Claim 2 further limits claim 1 in reciting signalling means providing information relating to the network topology for delivery to a terminal. The Examiner refers to column 7, lines 1-45. However, it is submitted that the claimed signalling means is not disclosed therein. If the Examiner persists in the stated grounds of rejection, it is requested that he specifically identify what the signalling means is that the Examiner refers to being present in column 7, lines 1-45, and Fig. 4.

Claims 3, 4, 21 and 22 further define the network controller of claim 1. As stated above, it is submitted that Bodin et al do not disclose the claimed network

controller. Moreover, it is submitted that Bodin et al do not disclose the subject matter of claims 3 and 4 and 21 and 22 which further limit the network controller. If the Examiner persists in the stated grounds of rejection, it is requested that he point out on the record where the subject matter of claims 3, 4, 21 and 22 is found in Bodin et al.

Claim 5 further limits claim 1 in reciting a transmitter delivering content to an area overlapping at least the network topology defined by the controller.

Claims 5 and 24-26 further limit claims 1-4 in reciting a transmitter delivering content to an area overlapping at least the network topology defined by the controller. As stated above, it is submitted that the controller is not present in Bodin et al. Moreover, it is submitted that Figs. 4 and 5 do not disclose a transmitter delivering the broadcast of content to an area overlapping at least the network topology determined by the controller when the broadcast content is defined as understood by persons of ordinary skill in the art to not pertain to voice communications as discussed in Bodin et al. If the Examiner persists in the stated grounds of rejection, it is requested that he point out on the record where Figs. 4 and 5 teach the subject matter of claim 5 and 24-26.

Claims 6 and 23 further limit claims 5 and 3 in reciting that the network controller is operable to modify the topology to deliver, in at least one cell, the content being delivered by the further transmitter as respectively recited in claims 5 and 3. It is submitted that this subject matter is not taught in column 7, lines 1-45, in Figs. 4 and 5. If the Examiner persists in the stated grounds of rejection, it is

requested that he point out on the record where the subject matter of claims 6 and 23 is found.

Claims 8 and 32-36 further limit claims 1-6 in reciting that the transmitter characteristics are varied with respect to frequency, antenna, directivity or transmission power. The Examiner cites column 7, lines 1-45, in Fig. 5 and states that the limitation is met by varying of transmission power. However, the variation of transmitter characteristics in Bodin et al does not pertain to the claimed broadcast of content.

Claims 10 and 38-40, further limit claim 9 in reciting that the transmitter characteristics are varied such that cellular density of the topology is reduced in area where substantially the same content is being delivered to terminals. Bodin et al do not pertain to the delivery of content for the reasons set forth above.

Claim 11 further limits claim 9 in reciting that the transmitter characteristics are varied such that the cellular density of the topology is increased in an area where substantially different content is being delivered to terminals. As stated above, Bodin et al do not pertain to the delivery of content.

Claims 12 and 13 are patentable for the same reasons set forth above with respect to claim 9.

Claim 18 further limits claim 17 in reciting the step of consulting a further signal for said reception characteristics to require to receive said content. As pointed out above, Bodin et al do not pertain to the delivery of content. Moreover, it is noted that there is no discussion of how the subject matter of consulting a further signal is met by Bodin et al

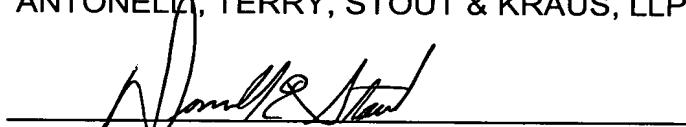
Claims 37 and 38 respectively limit claims 7 and 10 in reciting that the transmitter characteristics are varied such that the cellular density of the topology is increased in an area where substantially different content is being delivered to terminals. Claims 37 and 38 are patentable for the same reasons set forth above with respect to claim 11.

In view of the foregoing remarks, it is submitted that each of the claims in the application is in condition for allowance. Accordingly, early allowance thereof is respectfully requested.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (docket no. 0171.40294X00).

Respectfully submitted,

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